

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

| APPLICATION NO.  | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--|----------------|----------------------|-------------------------|------------------|
| 10/008,934   | 11/09/2001     | Chojiro Kuriyama     | 10921.90USD1            | 4795             |
| 7.   | 590 02/26/2003 |                      |                         |                  |
| Attention of Douglas P. Mueller                                      |                |                      | EXAMINER                |                  |
| MERCHANT & GOULD P.C.<br>P.O. Box 2903<br>Minneapolis, MN 55402-0903 |                | •                    | NGUYEN, HA T            |                  |
|  |                | , ,                  | ART UNIT                | PAPER NUMBER     |
|  |                |                      | 2812                    |                  |
|  |                |                      | DATE MAILED: 02/26/2003 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Servers  |  | 10/008,934  | KURIYAMA, CHOJIRO   |  |  |
|--|--|---|---|--|--|
|  | Office Action Summary  | Examiner  | Art Unit  |  |  |
|  | The May NO DATE And  | Ha T. Nguyen  | 2812  |  |  |
| Period for I   | The MAILING DATE of this communication ap<br>Reply   | opears on the cover sheet with the  | correspondence address  |  |  |
| THE MA - Extension after SIX - If the perior of the period of the perior of the perior of the perior of the period | RTENED STATUTORY PERIOD FOR REPI<br>MLING DATE OF THIS COMMUNICATION<br>in soft time may be available under the provisions of 37 CFR 1<br>(6) MONTHS from the mailing date of this communication:<br>iod for reply specified above is less than thirty (30) days, a re-<br>riod for reply is specified above, the maximum statutory period<br>or reply within the set or extended period for reply will, by staturate received by the Office later than three months after the mailinatent term adjustment. See 37 CFR 1.704(b). | 136(a). In no event, however, may a reply be ply within the statutory minimum of thirty (30) d d will apply and will expire SIX (6) MONTHS frote. Cause the application to become ABANDON | timely filed  ays will be considered timely.  m the mailing date of this communication. |  |  |
| 1)⊠ F  | Responsive to communication(s) filed on <u>04</u>  | February 2003 .   |   |  |  |
| 2a) <u></u> ⊤  | his action is <b>FINAL</b> . 2b)⊠ T  | his action is non-final.  |   |  |  |
| 3)☐ S<br>c<br>Disposition  | ince this application is in condition for allow<br>losed in accordance with the practice under<br>of Claims  | vance except for formal matters, parte Quayle, 1935 C.D. 11,  | prosecution as to the merits is 453 O.G. 213.   |  |  |
| 4)⊠ CI   | aim(s) 1-11 and 19-27 is/are pending in the  | e application.  |   |  |  |
| 4a)  | Of the above claim(s) <u>19-27</u> is/are withdra  | wn from consideration.  |   |  |  |
| 5) <u></u> CI  | aim(s) is/are allowed.   |   |   |  |  |
| 6)⊠ CI   | aim(s) <u>1-11</u> is/are rejected.  |   |   |  |  |
| 7) Cl  | aim(s) is/are objected to.   |   |   |  |  |
| 8) <u></u> Cl  | aim(s) are subject to restriction and/o  | or election requirement.  |   |  |  |
| Application  | Papers   |   |   |  |  |
| 9) <u></u> The   | e specification is objected to by the Examine  | er.   |   |  |  |
| 10)⊠ The drawing(s) filed on <u>09 November 2001</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.  |  |   |   |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |   |   |  |  |
| 11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.  |  |   |   |  |  |
|  | approved, corrected drawings are required in re  |   |   |  |  |
|  | e oath or declaration is objected to by the Ex   | xaminer.  |   |  |  |
|  | er 35 U.S.C. §§ 119 and 120  |   |   |  |  |
|  | knowledgment is made of a claim for foreig   | n priority under 35 U.S.C. § 119(   | a)-(d) or (f).  |  |  |
| a)⊠ <i>A</i>   | All b) Some * c) None of:  |   |   |  |  |
| 1.[  |  |   |   |  |  |
| _  | 2. $\boxtimes$ Certified copies of the priority documents have been received in Application No. <u>09/580,344</u> .  |   |   |  |  |
| 3.[<br>* See   | Copies of the certified copies of the prio<br>application from the International Buthe attached detailed Office action for a list  | ıreau (PCT Rule 17.2(a)).   | _   |  |  |
| 14)∏ Ackr  | nowledgment is made of a claim for domest  | ic priority under 35 U.S.C. § 119(  | e) (to a provisional application).  |  |  |
| 15)⊠ Ackı  | The translation of the foreign language pronowledgment is made of a claim for domest   |   |   |  |  |
| Attachment(s)  |  |   |   |  |  |
| 2) Notice of   | References Cited (PTO-892)<br>Draftsperson's Patent Drawing Review (PTO-948)<br>on Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u>   | 5) Notice of Informal   | y (PTO-413) Paper No(s)<br>Patent Application (PTO-152)                                 |  |  |
| S. Patent and Tradem   | ark Office   |   |   |  |  |

Application/Control Number: 10/008,934

Art Unit: 2812

#### DETAILED ACTION

1. Applicant's election without traverse of Group I, claims 1-11, in Paper No. 6 is acknowledged.

Claims 19-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made without traverse in Paper No. 6.

### Claim Objections

2. Claims 1-11 are objected to because of the following informalities: in claim 1, lines 16 and 18, and in claim 4, lines 2 and 5, deletion of "either" is suggested for correctness.

Appropriate correction is required.

Claims 2-11, variously depend from claim 1, they are objected to for the same reason.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1, 2, 4-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Uemura (U. S. Patent 4497105).

[Claim 1] Referring to Figs. 1a-9 and related text, Uemura discloses a solid electrolytic capacitor comprising: a capacitor element 12 having an anode (see Fig. 8, upper portion with a projection) and a cathode (lower portion); a base sheet member 22 having an obverse surface for mounting the capacitor element and a reverse surface opposite to the obverse surface; a protection package 44 formed on the obverse surface of the sheet member to enclose the capacitor element, the package having a first side surface adjacent to the anode of the capacitor element and a second side surface opposite to the first side surface; a conductive outer anode layer 32 electrically connected to the anode of the capacitor element; and a conductive outer

Application/Control Number: 10/008,934

Art Unit: 2812

cathode layer 32 electrically connected to the cathode of the capacitor element; wherein the outer anode layer is formed on at least one of the package and the sheet member, the outer cathode layer being formed on at least one of the package and the sheet member;

[Claim 2] further comprising an upper sheet member 42 for shielding the capacitor element, the capacitor element being arranged between the base sheet member and the upper sheet member (see Fig. 8);

[Claim 4] wherein the outer anode layer is formed on at least one of the first side surface of the package and the reverse surface of the base sheet member, the outer cathode layer being formed on at least one of the second side surface of the package and the reverse surface of the base sheet member (see Fig. 8);

[Claim 5] wherein the anode is exposed at the first side surface of the package to come into contact with the outer anode layer (see Fig. 8);

[Claim 6] further comprising a metal piece 18 attached to the anode of the capacitor element, the metal piece being exposed at the first side surface of the package to come into contact with the outer anode layer (see Figs. 6a and 8);

[Claim 7] further comprising a metal piece attached to the anode of the capacitor element and an anode connection layer 36 formed on the obverse surface of the base sheet member, the anode connection layer being connected to the metal piece and exposed at the first side surface of the package to come into contact with the outer anode layer (see Fig. 6a);

[Claim 8] further comprising a metal piece attached to the anode of the capacitor element and an anode connection layer 36 formed on the obverse surface of the base sheet member, the metal piece being connected to the anode connection layer, the base sheet member being formed with a through-hole for connecting the anode connection layer to the outer anode layer (see Figs. 5c and 6a);

[Claim 9] further comprising a cathode connection layer 36 formed on the obverse surface of the base sheet member and connected to the cathode of the capacitor element, the cathode connection layer being exposed at the second side surface of the package to come into contact with the outer cathode layer (see Fig. 5c); and

[Claim 11] ] further comprising a cathode connection layer 36 formed on the obverse surface of the base sheet member and connected to the cathode of the capacitor element, the base

Art Unit: 2812

sheet member being formed with a through-hole 26 for connecting the cathode connection layer to the outer cathode layer (see Fig. 5c).

### Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura in view of Su (U.S. Patent 4814946).

Uemura discloses substantially the limitations of claim 3, as shown above.

But Uemura does not disclose expressly wherein the package is formed with an at least partially slanted portion.

However, the missing limitation is well known in the art because Su discloses this feature (see Fig. 3).

A person of ordinary skill is motivated to modify Uemura with Su to clearly make the distinction in appearance between the two ends of the capacitor avoiding error in connection when the capacitor is used .

Therefore, it would have been obvious to combine Uemura with Su to obtain the invention as specified in claim 3.

7. Claim10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura in view of Hasegawa et al. (U.S. Patent 5390074, hereinafter "Hasegawa").

Uemura discloses substantially the limitations of claim 10, as shown above.

But it does not disclose expressly a cathode bump arranged on the cathode of the capacitor element, the cathode bump being exposed at the second side surface of the package to come into contact with the outer cathode layer.

Art Unit: 2812

However, the missing limitation is well known in the art because Hasegawa discloses this feature (see Fig. 1, #19).

A person of ordinary skill is motivated to modify Uemura with Hasegawa to obtain a well centered capacitor ensuring a good protection of the capacitor element.

Therefore, it would have been obvious to combine Uemura with Hasegawa to obtain the invention as specified in claim 10.

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the 8. examiner should be directed to Ha Nguyen whose telephone number is (703)308-2706. The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM, except the first Friday of each bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (703) 308-3325. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Ha Nguyen

**Primary Examiner** 

02-18 - 03